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BREEDING RECORDS OF UTAH BIRDS(1)

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The breeding records of Utah birds appearing in this report are the result of field observations extending over a period of approximately 17 years from 1926 to 1942 inclusive. Most of the work has been carried out in spare time in Utah County, especially in the vicinity of Utah Lake, but considerable data are also available from Salt Lake and Davis counties as well as scattered localities within the borders of the State.

In the main, it may be said that most of the records here presented represent sets of eggs collected. These eggs have been carefully preserved and the data accurately recorded. Both eggs and data repose in the private collections of the authors and at Brigham Young University. In addition to the ones collected there are included numerous records of nests and eggs observed and recorded in situ.

The nesting data are arranged according to counties, specific localities and dates. Where more than one record is available for any date the appropriate number is placed in parentheses following the date. Observations of the two authors are designated by (B) for Bee and (H) for Hutchings. A few records from Brigham Young Uni-

(1) Contribution No. 103 from the Department of Zoology and Entomology, Brigham

⁽¹⁾ Contribution No. 103 from the Department of Zoology and Entomology, Brigham Young University, Provo, Utah.

(2) It is fortunate that we are able to present for publication at this time a summary of the ornithological work of two of Utah's most enthusiastic and energetic bird students. It has been my pleasure to associate with both Mr. Bee and Mr. Hutchings for a number of years. I have been in the field with them on many occasions and can personally vouch for their intimate knowledge of Utah's avifauna as well as the meticulous care with which their observations have been made and recorded. Both men have been connected with us at Brigham Young University for a number of years and have contributed much to our mounted bird and zoological collections. Mr. Hutchings is an accomplished taxidermist and has contributed life history displays of several species of birds which are now on exhibit. James W. Bee and Harold Hutchings, sons of the two writers and now serving in the U. S. armed forces, have both been students at Brigham Young University and have contributed materially to our natural history collections through field expeditions conducted by the University.—C. Lynn Hayward.

versity, not previously published are included and indicated by (Y). Comments pertaining to nesting habits and most active nesting periods are made whenever sufficient data are at hand. Notes on the construction of nests and typical nesting habits apply only to particular cases observed and should not be construed to refer to the habits of a species in general.

The nesting dates given do not necessarily indicate the beginning of the nesting process since in some instances the eggs when collected were far advanced in incubation. Late dates are often accounted for by a second clutch being laid when the first set is lost by inundation, vandalism, scientific collecting or any of the many catastrophies that befall nesting birds.

The writers wish to express appreciation to their sons, James W. Bee and Harold Hutchings who have assisted in the collection and preparation of the data, and to Dr. C. Lynn Hayward of Brigham Young University who has collaborated in the compilation and editing of the manuscript.

LIST OF BREEDING RECORDS OF UTAH BIRDS

Colymbus nigricollis californicus (Heermann). Eared Grebe. Utah County: 1 mile south of outlet, Provo Bay, May 28 (B); north end, Utah Lake, June 30 (H). Salt Lake County: Black Slough area, June 5 (B). Davis County: Mouth of Jordan River, June 5 (B). Wasatch County: east end Strawberry Lake, July 27 (50) (H).

Nests observed were composed of floating masses of dead, water-soaked rushes or grasses attached to tules or grasses slightly depressed to hold the eggs. They were located near the margins of lakes where the water depth was about one foot and near the source of food.

Acchmophorus occidentalis (Lawrence). Western Grebe. Utah County: Mouth of Spring Creek, May 12 (B); South of Lehi, June 16 (nest ready for eggs) (H).

Nests were floating platforms of partly decayed rushes depressed on top to receive the eggs. They were placed in water about 18 inches deep near the margins of streams that meander through fields of rushes or vegetated shallows of lakes where the food supply is abundant.

Podilymbus podiceps podiceps (Linnaeus). Pied-billed Grebe, Utah County: West side Utah Lake, June 30 (H). Salt Lake County: Black Slough, June 5 (B); Wasatch County: North end of Strawberry Lake, July 26 (3) (B), July 27 (125) (H).

The nests observed were floating masses of dead rushes with mud added to the slight depression. A large colony, estimated at 125 pied-billed and 50 eared grebes, was visted at Strawberry Lake, July 27, 1938. On the following day a high wind destroyed almost all of them and hundreds of eggs could be seen on the bottom of the lake in 10 to 14 inches of water.

Pelecanus crythrorhynchos Gmelin. White Pelican. Toocle County: Hat Island, Great Salt Lake, May 16 (B).

Nests were slight depressions in the ground, occasionally with a few weed stems at the rim.

Phalacrocorax auritus auritus (Lesson). Double-crested Cormorant. Salt Lake County: Egg Island, Great Salt Lake, May 15 (5) (B). Cache County: five miles west of Logan, May 13 (Y).

Nests on the island were rude masses of weed and sage sticks depressed to hold the eggs and heavily coated with excrement from the birds. The Cache Valley colony nested in dead trees along the banks of Little Bear River in company with Treganza's heron. The nests of the cormorants were on the lower branches while those of the herons were higher up.

.Irdea herodias treganzai Court. Treganza's Heron. Utah County: neur mouth of Hobble Creek, Provo Bay, April 14 (5), 15 (3), 16 (2), 19 (6), May 7 (8) (BHY); south of Lehi, April 20 (H); 8 miles south of Pelican Point, Utah Lake, May 1 (H). Cache County: Little Bear River, 5 miles west of Logan, May 13 (Y) (young in nest).

Nests are platforms of sticks either on limbs of cottonwood trees or in marshes. A large colony of these herons formerly occupied a grove of cottonwood trees on the west shores of Utah Lake, 8 miles south of Pelican Point. When the colony was visited, May 1, 1923, then nests were placed so close in the trees that they appeared as a solid mass from a distance. Due to cutting of trees and persecution this site has now been abandoned.

Egretta thula brewsteri Thayer and Bangs. Brewster's Egret. Utah County: Marsh area east of Provo Bay, May 4, 8 (4), 12 (2) (B); Utah Lake west of Springville, April 19 (H). Salt Lake County: Black Slough area, April 29 (6) (B).

In the area studied the nests are platforms of dead rushes, slightly depressed at the top, and built up about 18 inches above the water in marsh areas near open water. Nests of this species average about 10 inches higher above the water than the following.

Nycticorax nycticorax hoactli (Gmelin). Black-crowned Night Heron. Utah County: Mouth of Hobble Creek, Provo Bay, April 15 (3), 16, 19, (7) (BH), May 4 (2), 6, 8 (2), 7, 12 (BH). Salt Lake County: Black Slough, May 9 (2) (B).

Nests are composed of mats of weed stalks and sticks built up approximately 10 inches above one foot of water.

Botaurus lentiginosus (Montagu). American Bittern. Utah County: Slough southwest of Provo, May 9 (B); slough and stream margin near Lehi, May 17, June 4 (B); vicinity of Lehi, May 1, 15, 20, 31, and June 1 and 4 (H).

Nests are composed of dead rushes, built in and over water about 16 inches deep. In many instances a runway of rushes connects the nest with the water level. The usual nesting habitat is swamp areas near streams.

Plegadis guarauna (Linnaeus). White-faced Glossy Ibis. Salt Lake County: Black Slough area, May 29 (17), June 13 (2) (B). Boxelder County: Bear River Marshes, May 6 (B).

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Nests are rude masses of new and (or) last year's tules and attached to growing tules. They are placed above about 22 inches of water.

Branta canadensis canadensis (Linnaeus). Canada Goose. Utah County: Provo Bay area, April 2, 11, 12 (2), 19, 26, and May 1 (B); Rock Island, Utah Lake, April 9 (B). Davis County: Farmington Bay, April 28 (3) and May 6 (B).

Large nests composed of old tules and with the depressions lined with bits of rushes, down and feathers. Nests are found on small islands or broken down rush mats.

Anas platyrhynchos platyrhynchos Linnaeus, Common Mallard, Utah County: Provo Bay area, April 10, 18, 19 (BY), May 5 (Y), June 8 (B). Davis County: Farmington Bay, April 5, 15 (5), 28 (4), May 6, 8, 27 (B) and June 13 (2) (B). Salt Lake County: Halloran Duck Club, April 9 (B).

Nests are composed of coarse grasses lined with finer grasses and feathers. They occurred on grown over accretion ground near stream, pond or lake.

Chaulelasmus streperus (Linnaeus, Gadwall, Utali County: Rock Island, Utah Lake, June 1 (B). Davis County: Farmington Bay area, June 25 (B).

The Rock Island nest was composed of tule stems and feathers and placed in a slight depression. It was approximately 150 feet from water.

Dafila acuta tzitzihoa (Vieillot). American Pintail. Utah County: North margin of Provo Bay, April 15 (B). Davis County: Farmington Bay area, April 15 (B).

Nests were composed of rushes and weeds and lined with down. They were found among weeds about 30 feet from the lake.

Nettion carolinense (Gmelin). Green-winged Teal. Davis County: Farmington Bay, May 6 (B). Utah County: Utah Lake, April 28 (H).

Grass and weeds lined with down compose the nests. They were found in marsh areas near streams.

Querquedula discors (Linnaeus). Blue-winged Teal. Utah County: North margin of Provo Bay, May 24 (B). Davis County: Farmington Bay, May 16 (B).

The Provo Bay nest was a cup of grasses lined with feathers. It was about 20 feet from a marsh area near the confluence of a stream and the lake.

Querquedula cymoptera (Vieillot). Cinnamon Teal. Utah County: Provo Bay area, May 28, June 3, 8 (B); Lakeview, May 13 (Y). Salt Lake County: Black Slough, May 6 (B). Davis County: Farmington Bay, April 28 (2), May 13 (2), 27, and June 13 (3), August 9 (2) (B).

Nests are composed of dry grasses lined with down.

Spatula clypeata (Linnaeus). Shoveller. Davis County: Farmington Bay. April 30 and May 6 (B).

The nests were depressions in the ground with the rims formed of weed stems and the cups lined with down. They were located in a pasture area a few feet from a water-filled borrow pit.

Nyroca americana (Eyton). Redhead. Utah County: north margin of Provo Bay, April 15 (B). Davis County: Black Slough area, May 7, June 4, 5 (B).

Nests were placed over water about one foot deep. They were composed of masses of dry rushes fastened to tules. A few feathers were in the cup.

Erismatura jamaicensis rubida (Wilson). Ruddy Duck. Salt Lake County: Black Slough, June 5 (B); Halloran Duck Club, June 5 (H). Davis County: Marsh north of Jordan River, June 5, 10 (B).

Nests were over about 10 inches of water. The base was made up of old rushes topped with bayonet grass and neatly cupped. A few feathers of the bird were in the cup. In one case the nest was cupped in a mass of water-soaked rushes.

Mergus serrator Linnaeus. Red-breasted Merganser. (3) Salt Lake County: property of Jordan Fur and Reclamation Company, June 7 (a female with young on the lake was reported to Mr. Bee by A. Bater). On June 13, 1936 a parent and 3 young was seen in the Jordan River, Black Slough Area by R. G. Bee and Arthur Bater.

Cathartes aura septentrionalis Wied. Turkey Vulture. Utah County: Cave in Hobble Creek Canyon, May 26, June 5, (11) (B).

This nesting site was in a cave about 12 miles up the canyon. The eggs were placed on the bare ground.

Astur atricapillus atricapillus (Wilson). Eastern Goshawk. Utah County: Head of Slate Canyon, May 16 (B); Mutual Dell, American Fork Canyon, May 17 (H); Deer Creek, American Fork Canyon, May 17 (H); Silver Lake, American Fork Canyon, April 20 and May 21 (H); Slide Canyon, Maple Flat, May 21 (B); American Fork Canyon, May 26 (H); Aspen Grove, Mt. Timpanogos, June 5 (Y); Salamander Lake, June 7 (Y); Altamont, Mt. Timpanogos, June 10 (H). Salt Lake County: Doty Gulch, Bingham Canyon, May 16 (B).

Nests are bulky masses of sticks, slightly cupped to hold the eggs. Bits of conifer or aspen bark are often in the cup. The nests are built both in conifer and aspen trees usually 35 feet or more up, and they are generally near the trunk of the tree or in the forks.

Accipiter velox velox (Wilson). Sharp-shinned Hawk. Utah County: Boxelder Canyon, northeast of Alpine, May 25 (B); Alpine Canyon, May 29, 30 (BH); Alpine Canyon, June 4 (H); Provo River Bottoms, June 9 (B); Hobble Creek Canyon, June 6 (B); Maple Canyon, June 18 (B); two miles north of Lehi, June 20 (H); near Vivian Park, July 24 (H). Salt Lake County: Dry Fork of Bingham Canyon, June 3, 19 (B); Butterfield Canyon, June 21 (B).

The nests are platforms of aspen, conifer or other twigs depressed to hold

⁽³⁾ Although the breeding status of the red-breasted merganser is hased upon sight records and the close field resemblance between the females of the American and red-breasted is recognized, it is not unlikely that the birds in question were red-breasted mergansers and that this species does breed in small numbers within the State. Mr. Bates who lives at Jordan Fur and Reclamation Company has frequently seen males and females of this species together throughout the summer and Mr. Bee has had the same experience. It is often stated (see for e.g. Peterson, A Field Guide to Western Birds, 1941, p. 38) that the red-breasted merganser is rare "in the Great Basin and Rocky Mountain Region." My own experience in the vicinity of Bear Lake, Utah-Idaho, and Utah Lake does not bear out the concept that this merganser is rare in Utah. In three years of bird work in Bear Lake Valley I did not often encounter the American merganser although the red-breasted was a common spring and fall migrant. I have also occasionally found males and females in pairs during the nesting season in that area. Out of 13 specimens of mergansers is the Brigham Young University collection, taken at various localities in Utah, about half are red-breasted.—C. L. H.

the eggs. Bits of bark are found in the cup. They are placed 12 to 15 feet up (occasionally higher) in a bush or tree in wooded areas.

Accipiter cooperi (Bonaparte). Cooper's Hawk. Utah County: Cedar Valley area, May 17, 18, 23, 27, and June 25 (H). Salt Lake County: Barney Canyon, Oquirrh Range, June 1 (B); Dry Fork of Bingham Canyon, May 24 and June 2, 5 (B); Butterfield Canyon, May 15 (B). Davis County: Mill Creek Canyon, southeast Bountiful, June 2 (B).

Nests are bulky masses of sticks lined with bits of bark or hay usually in oak or other trees in thicket areas near streams. In two cases, nests were located on great piles of tumble weeds and the nests themselves were composed of tumble weeds. In two other cases old magpie nests were utilized.

Buteo borealis calurus Cassin. Western Red-tailed Hawk. Utah County: Diamond Fork of Spanish Fork Canyon, April 11 (B); Slate Canyon, April 15 (B); Lake Mountain, April 2, 21, 26, 16, 17, 6, 20, and June 4 (BH); Cedar Valley area, April 9, 17, 26, 21, 30, 2, and June 15 (BH); Dry Canyon, Mt. Timpanogos, April 3 (Y); Big Tree Camp, Mt. Timpanogos, June 5 (young) (Y); north of Lehi, May 9 (H); east of Moseda, May 2 (H). Wasatch County: Strawberry Valley, May 30, 25 (B); Wallsburg Switch, April 27 and May 4 (B); Charleston, May 4 (2), 6 (B); Strawberry Valley, May 25 (B); Wallsburg, April 20 (B). Salt Lake County: Doty Gulch, Bingham Canyon, May 14 (B).

Nests are bulky structures composed of sticks and lined with bits or strips of bark or sometimes hay. In mountainous areas they are placed in cliffs or high in trees. In the desert, tops of junipers or rocky ledges are used.

Buteo swainsoni Bonaparte. Swainson's Hawk. Utah County: 7 mile Pass, Cedar Valley, April 20, 29, and May 25 (H); near Elberta, May 10 (H); west slope of Lake Mountain, May 9 (H); west of Saratoga, May 3 (H). Tooele County: Orr's Ranch, May 2 (nest ready for eggs) (B). Wasatch County: Wallsburg Switch, May 4 (B); Strawberry Valley, May 25 (B).

The usual nesting site is in the top of a juniper on a hillside overlooking sage and grease-wood flats. Nests are masses of sticks lined with juniper bark.

Butco regalis (Gray). Ferruginous Rough-leg. Utah County: Goshen Pass, April 9, 8 (BH); west side Lake Mountain, April 10, 1, 8, 22, 6, 9, 7, 15, 30 and May 1 (BH); east side Lake Mountain, April 22 (B); Cedar Valley area, March 3, April 6, 14 (4), 17, 9, 15, 12, 8, 26, and January 15⁽⁴⁾ (H); sand knolls west of Utah Lake, May 1 (H); south of Moseda, April 16 (H). Toocle County: north end of Rush Valley, April 2 (3) (H); Orr's Ranch, May 2 (2) (H); 5 mile Pass, April 11 (B); SW Mercur, April 26 (B); west slope of Stansbury Range, April 20 (B); Oquirrh Range, April 27 (2) (B). Salt Lake County: Parley's Canyon, April 27 (B).

Nests are bulky masses of sticks lined with juniper bark. They usually contain considerable other material such as cattle dung, wool and newspapers. They are generally placed in low junipers but in mountainous areas may be placed in high trees or on ledges.

⁽⁴⁾ The January 15, 1935 nesting record is extremely interesting. The record was made by Mr. Hutchings who states in his notes that the bird was found on the nest. A set of 2 eggs was collected. The nest was composed of sticks and tumble weeds and was well lined with bark. It was situated about 7 fect up in a small juniper. This early nesting date coincides with the mild winter and extremely early spring of 1935.—C. L. H.

Aquila chrysactos canadensis (Linnaeus). Golden Eagle. Utah County: Boxelder Canyon, east of Alpine, March 18 (B) and April 23 (H); east slope of Lake Mountain, March 28, and April 4, 12 (B); Greve Canyon, Mt. Timpanogos, April 2, 10, 19 and May 2 (eggs hatching) (B); Y Mountain, east of Provo, June 18 (young in nest) (B); Wildwood, Provo Canyon, April 2, 31 (B); Goshen Pa s, April 9, 21 (BH); Diamond Fork, Spanish Fork Canyon, April 24 (B); Pole Canyon, Cedar Valley, April 21 (B); Lehi Mountain, April 4, 7 (H); 5 Mile Pass, April 14, 16 (H). Toocle County: Oquirth Range, April 23 (young and pipped egg) (B) and May 9 (two young reported by H). Davis County: Antelope Island, Great Salt Lake, March 23 (B). Millard County: 8 miles south of Kanosh, March 20 (B).

In desert areas the nests are composed of sage, conifer or other available sticks lined with juniper and sage bark strips. Occasionally other material such as wire or newspapers are found in these nests. In conifer and aspen communities the nests are made of coarse sticks with occasionally a few corn stalks, topped with several inches of new conifer boughs depressed to hold the eggs. Nesting sites in desert regions are in juniper trees or shelves of cliffs; in mountains, trees or niches in cliffs are used. The same nest may be used year after year unless disturbed, but a pair of birds may have as many as three nests in the same general area.

Circus hudsonius (Linnaeus). Marsh Hawk. Utah County: Marsh area, vicinity of Lehi, May 3, 4, 11, 12 (2), 22, 25 (2), and June 7, 19, 20, 29, 30 (H): vicinity of Provo Bay, April 10, 18, 20, 23 and May 1, 19 (2) (B). Salt Lake County: Barney's Canyon, April 20 (B).

Nests are placed on the ground, on slight elevations in a marshy area or on broken-down rushes over water. They are composed of old matted rushes, grasses or weed stalks.

Pandion haliactus carolineusis (Gmelin). Osprey. Duchesne County: Mirror Lake, Uinta Mountains, August 24 (a single fully fledged young was seen at the rim of the nest) (B). Summit County: Trial Lake, Uinta Mountains, July 19, 30 (adults were seen carrying fish to a nest overlooking the lake) (Y). Servier County: Rock Creek Basin near Fish Lake, July 22, 1928. This nest was situated about 60 feet up in a dead fir tree. Birds were seen at the nest (B).

Falco mexicanus Schlegel. Prairie Falcon. Utah County: Chimney Rock Pass, April 3, 15, 17, 23 (BH); Lake Mountain vicinity, March 3, April 2, 7 (2), 8, 9 (2), 14 (2), 16 (2), 17, 18 (2), 20 (2), 21 (2), 22 (2), 26 (BHY). May 1, 2 (2), (H), and June 15 (H); 5 Mile Pass, April 8 (B); Boxelder Canyon east of Alpine, April 20 (B); creek north of Lehi, May 3 (H); Cedar Valley, April 6, 10 (H); Dry Canyon, Mt. Timpanogos, May 6 (Y); Goshen Pass, April 12 (H).

· Shelves or niches of rocky ledges are used as nesting sites. The eggs are placed on the bare ground or the nest of a raven may be utilized.

Falco peregrinus anatum Bonaparte. Duck Hawk. Utah County: Lake Mountain near Pelican Point, May 20, 1935 (H).

The eggs were placed on bare ground on a ledge overlooking Utah Lake. There were four in number and fresh at the time of collection. Mr. Cedar-strom who lives at Pelican Point reports that the birds have nested there for many years. One of the birds was collected to verify identification and is now in the collection of John Hutchings.

Falco sparverius phalaena (Lesson). Desert Sparrow Hawk. Utah County: west of Provo, May 20 (B); vicinity of Lehi, May 9, 14, 12, 16, 17, 24 (2), 26, 92 (4) (BH). Salt Lake County: Ft. Duchesne, May 17 (B). Wasatch County: Charleston, May 15 (2), Wallsburg Switch, May 28 (B). Davis County: Centerville, June 3 (B); Farmington Bay, June 2 (B). Boxelder County: Brigham City, May 6 (B).

Nests are generally placed in a cavity of a tree or in an old magpie nest.

Dendragapus obscurus obscurus (Say). Dusky Grouse. Utah County: American Fork Canyon, June 6 (young in natal plumage) (B); east of Power Plant, Alpine, June 4 (empty shells), June 1 (eggs pipped) (H); West Canyon, west of Lehi, May 30 and June 11 (hatching) (H); west face, Mt. Timpanogos, June 8 (B); near Soldier Summit, May 30 (B).

Nests found were scratched out cups lined with dry leaves and a few feathers of the incubating bird. They were found on high ridges.

Bonasa umbellus ssp.(5) (Douglas). Ruffed Grouse. Utah County: On May 17, 1942 a nest was discovered by C. L. Hayward and R. G. Bee, in a small hollow south of Aspen Grove, Mt. Timpanogos. The nest was at the base of a bent aspen on a gently sloping area and consisted of a hollow scooped out of dry aspen leaves. It was quite damp from recent storms. Four eggs were in the nest, and three of them were buried somewhat in the leaves and stained as if they had been there for some time. The site was marked and revisited May 23 at which time the nest contained 7 cggs. This time the nest showed more evidence of continued use. The bulk of it was dry aspen leaves lined with a few branches, twigs, and 2 or 3 feathers.

Centrocercus urophasianus (Bonaparte). Sage Hen). Utah County: hills in north end of Cedar Valley, May 16 (B); Tickville, Cedar Valley, May 16 (H), 1 (H); West Canyon, west of Lehi, June 10 (H). Wasatch County: Strawberry Valley, May 10, 15, 29, 30 (BH); Wallsburg, June 7 (H). Morgan County: April 29 (B).

Nests are slight hollows or scratched out cups sparsely lined with feathers, hay and weed stems and placed at the base of a sage ridge of valley, or slope.

Lophortyx californica californica (Shaw). California Quail. Utah County: vicinity of Provo, May 24, 30, June 11, and July 13 (B).

Nests are scratched out cups sparsely lined with feathers and (or) dry leaves and grasses in sheltered situations under logs or in thekets.

Phasianus colchicus torquatus Gmelin. Ring-necked Pheasant. Utah County: vicinity of Provo Bay, May 13, 24, 28 (B); Lehi, June 8 (B).

The usual nesting sites are weed patches, rushes, hedgerows or thickets. Nests are cups in the ground lined with feathers or stalks of weeds. Duck's nests are occasionally used.

Grus canadensis tabida (Peters). Sandhill Crane. Juab County: Fish

⁽⁵⁾ According to information received from John W. Aldrich, the ruffed grouse of our locality have been recently placed in a new subspecies. However, the new name is not available to us at this writing.—C. L. II.

Springs area, April 30 and May 4 (BH). *Utah County:* noted adult with young in the vicinity of Lehi, season of 1939 (H.)

Nests observed were platforms of bayonet grass with two or three stray feathers and were in and above water. They were placed in small clearings in a bayonet grass marsh near a spring creek.

Rallus limicola limicola Vieillot, Virginia Rail. Utah County: vicinity of Lehi, May 25, 22 (H); June 4 (2), 18, 19 (HB).

These nests were composed of old marsh grass or cat-tails, recessed to hold the eggs. They were partially hidden by overhanging marsh growth, over water, or among grasses of wet meadows.

Porzana carolina (Linnaeus). Sora. Utah County: Lehi, June 4 and 7 (BH). Wasatch County: Charleston, May 30 (B); Wallsburg, June 7, 9 (3), 11 (HB). Salt Lake County: south of Salt Lake City, June 2 (B).

Generally the nests have been found in the growth of marsh, bog, or inundated pasture. They are cups formed from dead grasses or flags.

Fulica americana americana Gmelin. American Coot. Utah County: west of Springville, May 27, 28 29 (B); Lehi, April 28, and May 29 (B); Provo Bay area, April 15 and May 15 (B). Boxelder County: May 28 (Y). Davis County: May 27 (6), 19, 13 (3), 6 (4), June 4 (10), and July 1 (B). Salt Lake County: Black Slough, May 16 B).

Nests consist of rushes matted and depressed to hold the eggs. Often a runway of rushes connects the water level with the nest. Typical nesting areas are marsh growths near the margins of creek, slough or lake.

Charadrius nivosus nivosus (Cassin). Western Snowy Plover. Utah County: Provo River near outlet to lake, July 5 (B); Utah Lake west of Provo, April 25 (H); June 6 (2) (B); Pelican Point, Utah Lake, April 25 (H). Davis County: mouth of Jordan River, May 15 (B); Farmington area, April 23, 25, 28, May 2, 4, 7 (2), 13 (2), 19, 27, June 7 (5), 10, 13, 23 (B). Salt Lake County: Crystal Duck Club, April 22 (B); Black Slough area, May 13 (3), 5, 17, 23, 4, and June 8 (B). Boxelder County: Chesapeake Lake, June 10 (B).

Nests are slight depressions in the ground sparsely rimmed with pebbles, concretion chips, shells, weed stems and similar objects. They may be placed in the center of roads or along dykes, beaches or on accretion grounds.

Oxycchus vociferus vociferus (Linnaeus). Killdeer. Utah County: west of Springville, May 22 (B); Lake Shore, April 28 (B); Provo Bay Area, May 15 (Y); Lehi vicinity, April 20, 23, May 1, 4, 8, 19 (2), 10, 25, 28, 29 (2), June 4 (2), 16, and July 2 (H). Salt Lake County: Black Slough area, March 23 (2). April 14 (2), 15, 16 (2), 20, 22, 26 (2), 29, and May 4, 5 (B); Halloran Duck Club, April 9 (B). Davis County: Jordan River, May 7 (B); Farmington Bay, April 22, 25, 26, 28, 30, May 2, 8, 7, 13, 19 (5), and June 13 (2) (B). Summit County: Upper Weber River (7000 feet elevation), June 4 (B). Wasatch County: Wallsburg, May 19 (B).

Favorite nesting areas are short grass pastures, canal banks, edge and center of roadways or on furrows or recedes of lakes or ponds. The nests are slight depressions with chips of stone, wood or small sticks at the rim.

Capella delicata (Ord). Wilson's Snipe. Utah County: Lehi vicinity, April

15, 20, 26 (H), May 4, 12 (2), 14 (4), 15 (3), 17 (3), 18 (2), 20 (3), 23, 25, 27, 29, 30 (HB), June 1, 2 (2), 4, 10, 18, 25 (2) (HB); South of Provo, May 5 (2), 6, 12, 15, 17, 14, 23 (3), 25, 26, and June 1 (YB). Salt Lake County: south of Midvale, June 30 (B). Wasatch County: Wallsburg vicinity, May 8, 13 (4), 15, 21 (6), 19, 29, 30 and June 5, 7, 11 (2) (BH).

The nest is a cup of dried grass placed in a tussock in a boggy pasture area near a spring source.

Numenius americanus americanus Bechstein. Long-billed Curlew. Utah County: Provo Bay area, May 1 (2), 2, and April 26 (B); Lehi vicinity, April 20 (2), May 1 (2), 4, 5 (2), 9, 27 (H): Mosida, May 1 (2), 10 (H); Pelican Point, Utah Lake, May 26 (H); Salt Lake County: west of Salt Lake City, April 23 (3) (H); Black Slough area, April 22 (2), 26, 29 (2), and May 4 (2), 20 (3) (B); Halloran Duck Club, April 22 (6) (B). Tooele County: west of Salt Lake City, April 7 and May 5 (B); NE of Magna, April 25 (B). Davis County: Farmington Bay area, May 5, 16, 17, 13 (2), 24, 27 (2) (B). Boxelder County: pasture east of Bear River Refuge, May 6 (B).

Usual nesting sites are short grass pastures or greasewood flats contiguous to a lake, slough or stream. The nests are natural hollows, slight depressions or cups in the ground lined with varying amounts of hay or weed stems.

Actitis macularia (Linnaeus). Spotted Sandpiper. Utah County: Rock Island, Utah Lake, June 4, 9 (2) (B): Lehi vicinity, June 15, 14, 23, 16, and July 3 (H); North Fork of American Fork Canyon, July 6 (H). Wasatch County: Strawberry Valley, July 7 (B); Wallsburg, June 11 (B); Park City, June 13 (B); Lost Lake, Uinta Mountains, June 19 (Y). Sevier County: Fish Lake, June 16 (B). Summit County: Upper Weber River, June 5 (2), 14 (2) (B). Davis County: Farmington Bay area, May 13, 19 (young) (B).

Nests are depressions lined with hay and are placed near water by a bush, boulder, or among last year's marsh grass.

Catoptrophorus semipalmatus inornatus (Brewster). Western Willet. Utah County: Mosida, Utah Lake, May 27 (H); Lehi, May 9 (H); Cedar Valley, May 24 (H); Pelican Point, Utah Lake, May 4 and June 3 (H); Provo Bay Reef, June 21 (downy young) (B). Davis County: Farmington Bay area, April 23 (nest ready for eggs), May 4, 11, 14, 16 (2), 17 (B); margin of Jordan River, May 7 (B). Salt Lake County: Black Slough area, April 29, May 5, 9 (2), 8, 11 (2), 14, 17, 20 (B); Crystal Duck Club, April 22 (2) (B).

Lowland pasture areas and marginal lands are usual nesting sites. The nest is of hay neatly cupped in and above ground,

Recurrirostra americana Gmelin. Avocet. Utah County: Provo Bay area, April 5, 29 (5), May 7, 25, and June 1 (3), 8 (2), 17 (3), 21 (34) (BHY); Lehi vicinity, May 11, 22 (3), and June 1 (H); Mouth of Provo River, June 26 (Y); Rock Island, Utah Lake, May 28 (H); Mouth of Spring Creek, Utah Lake, June 1 (H); Pelican Point, Utah Lake, May 30 (H). Salt Lake County: Black Slough area, April 15 (3), 26 (2), 22, 29 (2), May 2, 4 (4), 6, 7 (3), 11 (2), 14, and June 3 (B). Davis County: Delta of Jordan River, April 24, and May 7 (4) (B); Farmington Bay, April 27, 28 (11), and May 4 (13), 6 (90), 8 (2), 10, 13, 14, 18 (2), 19 (5), 20 (25) (B).

Nests are slight depressions in the ground lined with varying amounts of hay

or weed stalks, or they may be built up above the ground of the same materials. They are placed on damp recedes, dykes, ditch banks, lowland roads, accretion areas, or short grass pastures near water.

Himantopus mexicanus (Müller). Black-necked Stilt. Utah County: Provo Bay area, June 1, 17 (2), 21 (4) (B); Utah Lake, June 1 (H); Mouth of Provo River, June 26 (Y). Salt Lake County: Black Slough area, April 15, 29 (2), May 3, 9, and June 8, 15 (2) (B). Davis County: Farmington Bay area, May 10 (2), 4 (3), 18, 23, 27 (B).

Construction of the nests is very similar to those of the avocet. They have been found about the borders of sloughs, marshes and lakes as well as inundated pasture grounds.

Steganopus tricolor Vieillot. Wilson's Phalarope. Utah County: Lehi vicinity, May 4, 23, 24, and June 10, 11, 16 (H). Wasatch County: Charleston, June 15 (B); Wallsburg May 21, 30, and June 4, 5 (B). Davis County: Farmington Bay area, May 23, and June 7, 9 (B).

Usual nesting sites include grassy pastures, recedes, or marginal lands.

Larus californicus Lawrence. California Gull. Utah County: Rock Island, Utah Lake, May 7 (26), 8 (18), 17 (20), 20 (8), 23 (6), 28 (11), 31 (4) (B). Davis County: promontory of Antelope Island, May 6 (3) (B).

Nesting in typical colonies on islands or promontories.

Larus pipixean Wagler. Franklin's Gull. Boxelder County: Marsh area near Mouth of Bear River, May 6 (22), 17 (2) and 30 (B).

The nesting colony, in company with the white-faced glossy ibis, is situated over shallow water in a growth of bayonet grass marginal to open water of a small lake. Nests are of bayonet grass slightly depressed to hold the eggs.

Sterna forsteri Nuttall. Forster's Tern. Utah County: Rock Island, Utah Lake, May 28 (4) and June 4 (9), 9 (19) (B); North shore of Utah Lake, near Lehi, May 28 (2) (H). Salt Lake County: June 5 (6) (B). Davis County: Delta of Jordan River, June 5 (B).

Nests are slight depressions lined with varying amounts of weed stems. They may be placed either on the ground of island or on broken down mats of rushes over water.

Hydroprogne caspia imperator (Coues). Caspian Tern. Utah County: Rock Island, Utah Lake, May 5 (2), 7, 19, 23 (5), 28 (15), and June 4 (9), 9 (2), 6 (8) (B).

A colony nests in company with the California Gull on Rock Island.

Chlidonias nigra surinamensis (Gmelin). Black Tern. Salt Lake County: Black Slough area, June 8 (4) (B); Halloran Duck Club, June 8 (2) (H). Boxelder County: Chesapeake Lake, June 10 (2) (B). Davis County: Delta of Jordan River, June 10, 17 (B).

The usual nesting sites are on mats of dead rushes in marshes or on grass tufts of inundated marginal lands.

Zenaidura macroura marginella (Woodhouse). Western Mourning Dove. Utah County: Lehi vicinity, May 1, 10, 22, 24, 29 (2), June 1, 16, 18, 22, 23, July 12, 20, and August 4 (H); Provo, May 22 (Y). Davis County: Farmington Bay,

May 27 (3) (B). Salt Lake County: May 20, 28, and June 10 (B). Kane County: Willow Tank Spring, June 20 (Y).

Nests are slight platforms of twigs or rootlets on a limb of a tree or bush usually near the ground. They may also be placed on the ground.

Coccyzus americanus occidentalis Ridgway. California Cuckoo. Utah County: Provo River Bottoms, June 8 (B); Lehi, June 28 (H).

The nest found by Bee was a frail platform of twigs saddled on a broken down limb of a cottonwood tree a few feet from the ground. These birds inhabit the wooded areas of the river floodplains.

Otus asio inyocnsis Grinnell. Inyo Screech Owl. Utah County: near Lakeshore, May 9 (B); West Canyon, May 23 (B); Lehi, April 5 (H).

The usual nesting site is in the cavity of a flicker hole in a tree. A few wood chips and stray feathers may be taken in the bottom of the nest.. Nesting holes are usually 15 to 20 feet from the ground.

Otus flammcolus (Kaup). Flammulated Screech Owl. Utah County: Mutual Dell, Mt. Timpanogos, June 13, 1934 (H).⁽⁶⁾

The nest was placed in a living aspen 12 feet from the ground. No nesting material was used but wings of small birds eaten by the owls were in the nest. The eggs were fresh on the above date.

Bubo virginianus occidentalis Stone. (7) Montana Horned Owl. Utah County: Vicinity of Lake Mountain, March 28, 19, April 5, 7, 17, 18, 19, and May 2 (young) (BH); Vicinity of Lehi, March 15, 24 (2), 19, and April 29, 7 (H); South Fork of Provo Canyon, March 21, and April 10 (YB); Cedar Valley, March 22 (H). Wasatch County: Vicinity of Charleston, March 26 (2), and April 6, 7, 26, 27 (B). Salt Lake County: Bingham Canyon, April 30 (B). Millard County: Kanosh, March 20 (B).

Nests are on bare earth, with occasionally a few feathers or sticks added, located on a shelf or niche of a cliff; or old hawk or other bulky nests of sticks may be used. This last mentioned type is often found in trees.

Spectyto cunicularia hypugaea (Bonaparte). Western Burrowing Owl. Utah County: West of Lehi, April 30, May 1, and June 3 (H). Salt Lake County: near Welby, May 24 (B). Boxelder County: west of Brigham City, May 6 (B).

The nesting site is at the end of a burrow along a canal bank, wash or other terrain high enough to have a measure of protection from floods. Manure is usually carried in for nesting material.

Asio wilsonianus (Lesson). Long-eared Owl. Utah County: Lehi, April 7. 28 (H); Lake Mountain area, April 10, 25, and May 2 (HY), June 16 (H); west of Springville, April 18 (Y). Salt Lake County: Bingham Canyon, May 5 (2), 10, 24 (B); Lark, May 5 (B). Toocle County: Oquirrh Range, April 11 (B).

⁽⁶⁾ At the time this nest was discovered Mr. Hutchings collected the bird from the nest and prepared it as a mounted specimen. I have examined this specimen and find it to be undoubtedly the flammulated screech. The nesting of this species on Mt. Timpanogos under similar circumstances has been previously reported (Hayward, 1937. Wilson Bulletin, 49: p. 304).—C. L. H.

⁽⁷⁾ A specimen taken from the nest in the South Fork, Provo Canyon, was identified by Dr. H. C. Oberholser as occidentalis (see Hayward, 1937, Wilson Bulletin, 49; p. 305). However, the subspecific identity of the nesting birds of the west desert and south is still somewhat in doubt, since no nesting specimens were available to the writers.—C. L. H.

Davis County: Farmington Bay area, May 4 (young in nest) (B). Wasatch County: Charleston, April 26 (B).

An old hawk or magpie nest is utilized as a nesting site.

Asio flammeus flammeus (Pontoppidan). Short-eared Owl. Utah County: Provo Bay area, April 19, 24, 25 (B); Lehi, May 9, 10 and June 16, 22 (HY). Juab County: Fish Springs, May 4 (B). Davis County: Farmington Bay area. April 25 (B).

The nests are depressions on the ground lined with sticks and weeds. They are usually placed in weed patchs or rushes near marsh areas or on accretion ground.

Phalaenoptilus nuttalli nuttalli (Audubon). Nuttall's Poor-will. Utah County: South Fork of Hobble Creek Canyon, June 4 (B). The bird was flushed from the nest at close range; Granite Mountain near Alpine, May 23 (set of eggs acquired by R. G. Bee from Andrew Johnson of American Fork). County: Ute Mountain, June 23 (Y).

Chordciles minor hesperis Grinnell. Pacific Nighthawk. (8) Utah County: West Canyon, Cedar Valley, July 2, 4 (3), 6 (2), 11, 24 (2) (HB); Hobble Creek Canyon, June 29 (H); Pelican Point, Utah Lake, July 22 (H). Wasatch County: Wallsburg Ridge, June 30, and July 4 (5), 5 (B); Strawberry River Dam, July 7 (3) (B).

Eggs are placed on bare ground usually at the base of a sage. The favorite nesting site is on a gradual slope near the top of a ridge.

Acronautes saxatalis saxatalis (Woodhouse). White-throated Swift. Grand County: Arches National Monument, August 14, 1941. The birds were nesting in a cavaty formed by a slight separation of a slap of rock from the roof of a cave. Adults weer seen entering the aperture and young could be heard in the nest (B).

Archilochus alexanderi (Bourcier and Mulsant). Black-chinned Hummingbird. Utah County: near mouth of Alpine Canyon, June 11 (H).

Sclasphorus platycercus platycercus (Swainson). Broad-tailed Hummingbird. Utah County: Provo River Bottoms, May 20 (B); Mt. Timpanogos, May 31, June 12 (2), 13, 24, and August 1 (HYB); Alpine, July 2 (H). Salt Lake County: Bingham Canyon, June 12, 13, and July 11 (B). Summit County: Upper Weber River, June 14 (3) and 19 (B).

The nest is a neat cup of plant down and (or) cottonwood "snow," decorated to simulate the environment with lichens or leaves bound with cobwebs. It may be placed on the limb of most any tree or shrub and often on a branch overhanging water.

Sclasphorus rufus (Gmelin). Rufous Hummingbird. (9) Utah County: Lehi, June 20, 21 and July 30 (H).

(8) Male nighthawks taken in the vicinity of Mt. Timpanogos during the nesting season have proved to be hesperis but no breeding females have been taken thus far. The subspecies henryi is known to breed eastward in the Uinta Basin (see Hayward, 1940, Great Basin Nat., 1 (2); p. 94).—C. L. H.

(9) The breeding records of the rufous hummingbird are of unusual interest. Bent (1940, U. S. Nat. Mus. Bull. 176, p. 396) states that the species breeds south as far as southwestern Montana and suggests that it may be found in the mountains further southward. A nesting specimen was collected and mounted by Mr. Hutchings and was later supposedly sent to the Brigham Young University, but unfortunately it was lost. However, Mr. Hutchings carefully checked the specimen and there is no doubt as to its identity.—C. L. H. ever, Mr. Hut tity.-C. L. H.

Nests were composed of cottonwood floss, lichens and bits of wood. They were placed on the limb of an apple tree 3.5 to 5 feet from the ground.

Colaptes cafer collaris Vigors, Red-shafted Flicker, Utah County: Mouth of Spring Creek, May 13 (B); Provo River, Utah Valley, May 2, 15 (B); Lehi, May 10, 22 (B); Mt. Timpanogos, May 17 and June 19 (B). Wasatch County: Provo River, May 21 (B).

The favored nesting site is a natural or self prepared cavity in a tree or post, in garrets of buildings, or occasionally in holes in earthen banks. Eggs are placed on chips at the bottom of the cavity or on a beam.

Asyndesmus lewis Gray. Lewis's Woodpecker. Utah County: Salamander Lake, Mt. Timpanogos, June 25 (B). Salt Lake County: Sugar House, July 7 (B).

Nests were placed in a shaft cavity averaging about 18 inches deep, usually high in partly dead trees,

Sphyrapicus varius nuchalis Baird. Red-naped Sapsucker. Utah County: Aspen Grove, Mt. Timpanogos, June 25 (young) (B); Vivian Park, Provo Canyon, July 5 (feeding young) (B).

Dryobates villosus monticola Authony. Rocky Mountain Hairy Wookpecker. Utah County: Mule Flat, Mt. Timpanogos, May 17 (young) (B); Aspen Grove, Mt. Timpanogos, June 19 (young) (B).

Dryobates pubescens leucurus (Hartlaub). Batchelder's Woodpecker. Utah County: Summit of Loop Road, Mt. Tin:panogos, July 11 (young in rest) (B).

Tyrannus tyrannus (Linnaeus). Eastern Kingbird. Utah County: Palmyra, June 18 (B); vicinity of Lehi, June 11, 20, 25, 26, 28, 29 (HB). Davis County: Farmington Bay, June 23 (B).

The nest is a cup of hay and weed stalks lined with varying amounts of hair and wool, and placed at an average height of about 12 feet in trees which usually have dead branches.

Tyrannus verticalis Say. Arkansas Kingbird. Utah County: Provo, June 10 (B); Spanish Fork, June 18 (B); Lehi, June 29 and July 1 (H); Saratoga Springs, June 16 (H). Salt Lake County: Hibbard, June 20, 22 (B); Ft. Harriman, June 16 (B); Welby, June 24 (B).

Sayornis saya saya (Bonaparte). Say's Phoche. Utah County: Lake Mountain, May 13 and June 3 (B); Saratoga, May 23 (B); Cedar Valley, May 28, 23 (H); Rush Valley, July 8 (H); Pelican Point, Utah Lake, May 13 (H).

Nests are large scraggly masses composed of hay, string, rags, wool and feathers, placed on the beam of an outbuilding, old mine tunnel or the like.

Empidonax trailli brewsteri Oberholser. Little Flycatcher. Utah County: Lehi, May 16, 20, June 15, 28, 29 (2), 30 (3) and July 1 (BH); Provo, June 22 (3), 23 (B).

The favorite nesting habitat is in thickets of wild rose or willow near a stream or marsh. The nests are composed of fine plant fibers, weed bits and rootlets.

Empidonax oberholseri Phillips. Wright's Flycatcher. (10) Wasatch County: Keetlev, June 14 (B).

The nest was composed of fine grasses and plant fibers and placed in the crotch of an oak near a spring. This nest also contained hair, wool, and feathers,

Empidonax difficilis difficilis Baird. Western Flycatcher. Utah County: Aspen Grove, Mt. Timpanogos, June 26 (2) (Y); American Fork Canyon, June 26 and July 24 (H).

Nesting sites are usually cool shaded places close to water or on cliffs with water dripping near the nest. The nest is composed of fine rootlets and grasses with growing moss over the surface.

Myiochones richardsoni richardsoni (Swainson). Western Wood Pewee. Davis County: Layton, June 10 (B). Utah County: Mt. Timpanogos, June 19 (nest under construction), July 10, and August 12 (young) (Y).

The nests are neat cups of fine plant fibers and hair usually placed on a horizontal, dead limb of an aspen or poplar.

Otocoris alpertris utahensis Behle. Great Salt Lake Horned Lark. Utah County: Cedar Valley, April 25, May 30, and July 1 (H). Salt Lake County: Bingham Canyon, May 12 (B); Copperton. April 12 and June 24 (B); pasture near Black Sloughs, May 9 (B); between Ft. Harriman and Lark, April 11 (B).

Nesting sites are usually in short grass arid or semi-arid situations. The nests are cupped in the ground and composed of grass, hay and plant down, occarionally with a sparse amount of wool added.

Tachycineta thalassina lepida Mearns. Violet-green Swallow. Utah County: Salamander Lake, Mt. Timpanogos, June 25 and July 5 (3), 6 (B); American Fork Canyon, June 21 (B) and July 8 (H); Mt. Timpanogos, June 21 and July 25 (H).

This species usually nests in small colonies often in company with tree swallows and purple martins. The nests are a few feathers or inner bark fibers placed in the bottom of cavities in dead or living aspens.

Iridoprocne bicolor (Vieillot). Tree Swallow. Utah County: Salamander Lake, Mt. Timpanogos, June 25 (B); Silver Lake, American Fork Canyon, June 23 and July 4 (H). Sevier County: Fish Lake, July 18 (seen at nesting hole) (B).

The nesting habits are similar to those of the violet-green swallow.

Riparia riparia riparia (Linnaeus). Bank Swallow. Utah County: Bank of Jordan River, June 19 (B).

Stelgidopteryx ruficollis serripennis (Audubon). Rough-winged Swallow. Utah County: Lehi, June 2, 12, 15. The nest was placed in a recess of a thatched roof of a cow shed (H).

Hirundo crythrogaster Boddaert. Barn Swallow. Utah County: Jordan River near Lehi, June 28 (2) (B). Salt Lake County: Draper, May 23, 31 (2) and July 2 (2) (B).

This species nests in colonies in outbuildings. The nests are masses of mud

⁽¹⁰⁾ Notes pertaining to the nesting of Wright's flycatcher, together with 19 other species of mountain dwelling birds have been reported by Hayward, Great Basin Nat. 2 (1); pp. 1-8, pl. I, 1941. Photographs of nests and eggs of 7 species are shown.—C. L. H.

pellets cemented into a cup-shaped structure and lined with feathers of varying amounts.

Petrochclidon albifrons albifrons (Rafinesque). Northern Cliff Swallow. Utah County: Diamond Fork, Spanish Fork Canyon, June 12 (8) (B). Wasatch County: Indian Canyon, July 13 (3) (B).

Progne subis subis (Linnaeus). Purple Martin. Utah County: Mt. Timpanogos, June 25 (H).

This species is known to nest only in the mountains, in central Utah. It is found in aspen forests and usually selects large dead aspens or rarely the dead tops of solitary conifers as nesting sites.

Cyanocitta stelleri annectens (Baird).(11) Black-headed Jay. Utah County: Alpine Canyon, May 30 and June 3 (B).

The nests were placed in conifers 7 to 14 feet above ground. They were bowl shaped structures in a mass of twigs composed of moss and dry grass cemented with mud and lined with rootlets.

Aphelocoma californica woodhousei (Baird). Woodhouse's Jay. Utah County: North end of Cedar Valley, May 25 (young) (B); Mouth of Alpine Canyon, May 25 (H); Tickville, west of Lehi, April 22 and May 10, 20 (H). Salt Lake County: Butterfield Canyon, April 25 (B); west of Lark, June 11 (B).

The outer shell of the nest is composed of sticks while the inner bowl is made of cedar bark strips, rootlets, and horsehair. They are placed in a juniper or oak 5-10 feet up from the ground.

Pica pica hudsonia (Sabine). American Magpie. Utah County: mouth of Hobble Creek, May 1 (2), April 8, 15, 16 (B); Springville, April 3 (B); Cedar Valley, April 4 (H); Lehi, March 30, April 10, 20, May 10, and July 3 (H). Wasatch County: Wallsburg bridge, Provo River, April 25 (B); Charleston, Provo River, April 16 (B). Salt Lake County: Dry Fork of Bingham Canyon, May 5, 24 (B).

Corvus corax sinuatus Wagler. American Raven. Utah County: Lake Mountain, March 28, 31, April 3, 17, 18 and May 7 (HB); Cedar Valley, April 14, 15, 25, 28 (2), and March 30 (HB); Sunshine Canyon, May 4 (H); west side of Utah Valley, March 21 (H). Toocle County: Rush Valley-Cedar Valley Divide, April 8 (B); Rush Valley, April 7, 14 (H); Orr's Ranch, May 3 (B); Desert Mountain, April 19 (H); Skull Valley, April 26 (H). Iron County: seven miles SW of Kanosh, March 21 (B). Millard County: Fish Springs, April 30 (H); vicinity of Kanosh, March 20 (4); Delta, April 16 (H).

This species constructs a well cupped nest with the outer part of juniper and sage sticks and a tight inner cup of sage and juniper bark. When available, wool and hair are also used in the lining. Nests are placed on a shelf of a cliff, on timbers of mine hoists and deserted buildings, and in cottonwood or juniper trees.

Corvus brachyrhynchos hesperis Ridgway. Western Crow. Utah County: mouth of Hobble Creek, west of Springville, May 5 (a set of four eggs is in

⁽¹¹⁾ Dr. William II. Behle who has critically examined our Cyanocitta states in a letter that he is unable to recognize the subspecies **cottami** recently described by Oberholser (1937, Proc. Biol. Soc. Wash., 50; p. 117). He further indicates that the northern and central Utah birds more nearly resemble **annectens.**—C. L. II.

the Y collection, collected by C. L. Hayward and D. E. Johnson). Wasatch County: near Wallsburg Bridge, Provo River, April 26 and May 10 (B).

Nests are well made of sticks and compactly lined with inner bark of the cottonwood and horsehair. The nests observed were placed in black willows 14 to 22 feet from the ground.

Cyanocephalus cyanocephalus (Wied). Pinon Jay. Utah County: Five Mile Pass, March 30, 31 and April 8 (B); Lake Mountain, April 1, 2 (5), 9 (4) (HB); Cedar Valley, April 13 (H); east of Sunshine, May 10 (H); Tickville, west of Lehi, May 14, 20 (2) (H).

This species nests in colonies in juniper trees at an average height of six feet. The nests are deep and bulky, compactly built of twigs and shreds of inner bark supporting a well made cup of various shreds of bark, plant fibers, rootlets, weeds, wool, grasses and an occasional feather.

Nucifraga columbiana (Wilson). Clark's Nutcracker. Utah County: One nesting record only is available to the writers. The nest was located March 30, 1941 on the south side of Slide Canyon, Wasatch Range, east of Provo at about 7,000 feet altitude by James W. Bee. The nest was constructed and contained one egg on that date. Because of illness James was unable to revisit the nesting site, but his father, R. G. Bee and Reed Biddulph, photographer, visited it again on April 7. On this last visit photographs were taken and the set of three eggs was collected.

The outer nest was of conifer and mahogany sticks while the inner cup was a compact structure of plant fibers, hay, inner bark, pulpy wood strips and a few conifer needles in the bottom. It was placed on two branches of a white fir tree near the main trunk and was about 8 feet above approximately 4 feet of snow. The tree in which the nest was placed measured 4 inches in diameter at the level of the nest.

Penthestes atricapillus septentrionalis (Harris). Long-tailed Chickadee. Utah County: Lehi, May 25 (B); Aspen Grove, Mt. Timpanogos, June 27 (2) (B); American Fork Canyon, July 6 (H).

The nesting site is in the cavity of an old tree stump or tree or under the eaves of a house. The nest lining consists of fine grasses and feathers.

Penthestes gambeli gambeli (Ridgway). Mountain Chickadee. Utah County: Salamander Lake, Mt. Timpanogos, June 25 (B); Wasatch County: ten miles east of Kamas, June 26 (B). Salt Lake County: Butterfield Canyon, June 4 (B).

Psaltriparus minimus plumbeus (Baird). Lead-colored Bush-Tit. Utah County: Cedar Valley, June 10, 1933 (H).

The nest was a pensile structure, entered from the side and composed of hay and plant fibers and lined with wool and feathers. It was placed 12 feet up in the top of a juniper.

Certhia familiaris montana Ridgway. Rocky Mountain Creeper. Utah County: Cirque above Granite Flat, American Fork Canyon, June 15, 1936 (H). This nest was placed in a conifer about 6 feet up behind a piece of loose bark.

Sitta carolinensis nelsoni Mearns. Rocky Mountain Nuthatch. Utah County: above Granite Flat, American Fork Canyon, June 18 (H).

The nesting site of the above record was in an abandoned woodpeeker hole, 30 feet up in the side of a tree. Five eggs were in the set.

Cinclus mexicanus unicolor Bonaparte. Dipper. Utah County: Springdell, April 27 (B); North Fork, Provo Canyon, May 17 (B).

Nests are oven-shaped structures composed of moss and lined with fine grass. The entrance is at the side. The nest may be placed in a niche of a cliff among the roots of a tree or on the beam of a bridge always close to the edge of a stream.

Troglodytes acdon parkmani Audubon. Western House Wren. Utah County: Maple Flat, east of Provo, June 22 (B); Salamander Lake, Mt. Timpanogos, June 21, 25, 29 (BY); Lehi, May 29 (H); American Fork Canyon, June 2 (H); Aspen Grove, Mt. Timpanogos, June 29 (H); Silver Lake, American Fork Canyon, July 8 (H). Salt Lake County: Bingham Canyon, June 17 (B). Wasatch County: Strawberry Valley, June 6 (B).

Nests are of twigs, hay and grasses lined with hair, fur and feathers, placed in a crevice of a barn, house, post or tree.

Telmatodytes palustris plesius (Oberholser). Western Marsh Wren. Utah County: Provo Bay, April 29 (2), May 10, 17, June 8 (B); Utah Lake, April 22 (B); Lehi, April 29, May 10 (2), 22, 28, 30 (2), and June 16 (H).

Catherpes mexicanus conspersus Ridgway. Canon Wren. Summit County: Washington Lake, Uinta Mountains, July 7 (B).

The nest was a mass of soft materials placed in a niche of rock bordering a stream.

Salpinetes obsoletus obsoletus (Say). Common Rock Wren. Utah County: Oquirrh Range, May 26 (B); 7-mile Pass, west of Lehi, June 6 (B); east side of Lake Mountain, April 21 (B); Pelican Point, Utah Lake, May 26, 29 (H). Washington County: St. George, April 29 (Y).

Nests are built at the end of a tunnel under a boulder or niche of ledge and are placed in a depression lined with hay and grass.

Mimus polyglottos leucopterus (Vigors). Western Mockingbird. (12) Utah County: West of Lehi, May 30, June 3, 4 (2), 10, 13 (2), 20, 21, 24, 28, and July 2 (HB).

Greasewood bushes are used as nesting sites. The nests are composed of sticks, lined with rootlets, grasses and wool.

Dumetella carolinensis (Linnaeus). Catbird. Utah County: Provo River Floodplane, west of Provo, June 4, 10 (2) (B); Lehi, May 1, and June 30 (H). Wasatch County: Wallsburg Switch, June 11 (B).

This species makes bulky and rudely constructed nests of twigs, leaves and grasses and lined with fine grasses. They are placed in a thicket near a stream.

Toxostoma bendirei (Coues). Bendire's Thrasher. Utah County: Lake shore south of Lehi, April 26, 1932 (H).

The nest was composed of small sticks lined very neatly with fine grass, rootlets and horse hair. It was placed on the stump of a black willow and was

⁽¹²⁾ Nesting and distribution of the western mocking bird in Utah have been described by Vasco M. Tanner, Proc. Utah Acad. Sciences, Arts, and Letters, 13: pp. 185-187, one map, 1936.—C. L. II.

cleverly hidden by a new growth of willow. The eggs of this species are spotted with brown, light drab, and lilac gray especially at the large end in contrast to those of the Leconte thrasher which are minutely speckled and the Crissal thrasher which has eggs that are plain pale bluish green. The egg characteristics together with the appearance of the bird make this record quite certain although it is rather far removed from its normal range.

Oreoscoptes montanus (Townsend). Sage Thrasher. Utah Conuty: vicinity of Lehi, April 26, May 8, June 4, 6, 10 (4), 13, 16, 22, 27 (3), and July 1, 3 (3), 4, 10, 19 (HB). Salt Lake County: Copperton, May 27; Bingham, May 6 (B); Black Slough Area, May 5 (2) (B).

Nests are of sage sticks, lined with bark strips, fine rootlets and sometimes cattle hair. They are placed in a sage or greasewood.

Turdus migratorius propinquus Ridgway. Western Robin. Utah County: Provo, May 8, 18 (B); Lehi, April 4, 20, May 10, June 1, 28 (H). Salt Lake County: West Jordan, May 29 (B).

Nests are of hay, sticks and leaves with a plastered cup of mud and placed in trees, bushes or buildings.

Hylocichla guttata auduboni (Baird). Audubon's Hermit Thrush. Utah County: South Fork of Provo Canyon, June 7 (B); Stewart's Flat, Mt. Timpanogos, June 25 (B); American Fork Canyon, June 12, 25, 29 (2), and July 2 (H). Salt Lake County: Dry Fork of Bingham Canyon, June 5 (B); Barney's Canyon, June 4 (B); Butterfield Canyon, June 4 (5), 11 (B).

This species builds a nest of sticks, bark, rootlets, moss, leaves and horsehair woven into a bowl-shaped mass, placed in a bush or tree at medium or low levels. Nesting sites are often near streams. The species is distributed throughout the montane forests and extends somewhat into the chaparral ecotone.

Hylocichla ustulata swainsoni (Tschudi). Olive-backed Thrush. Utah County: South Fork of Provo Canyon, June 20 and July 5 (B); American Fork Canyon, June 22, 24, and July 6, 24, 26 (H).

Nests are placed at low levels in a bush or tree and are composed of hay and leaves with a small amount of horsehair. This species breeds mainly in canyon bottoms near water and is distributed mostly within the chaparral ecotone and lower montage forests.

Hylocichla fuscescens salicicola Ridgway. Willow Thrush. Utah County: Provo River floodplain NW of Provo, June 4 (2), 29 (B); American Fork Canyon, July 4 (2), 24 (H).

This species inhabits thickets and woods along the river floodplains in valleys, chaparral and lower montane forests. Nests are composed of twigs, hay, grass and bark strips and are placed in clumps of bushes near the stream.

Sialia currucoides (Bechstein). Mountain Bluebird. Utah County: Mt. Timpanogos Cirque, June 28 (Y); Lehi, July 2, 3 (H); Cedar Valley, May 16 (2) (H). Salt Lake County: Lark, May 2 (B). Wasatch County: Keetley, June 13 (B).

The nest is a sprawly structure composed of hay, feathers, and bark strips placed in cavities of a tree, house, outbuilding or on mine timbers.

Myadestes townsendi (Audubon). Townsend's Solitaire. Utah County:

Stewart's Flat, Mt. Timpanogos (no date) (B). Garfield County: Birch Creek Canyon, west of Escalante, June 15 (Y).

Nests are large loosely woven piles of plant material placed in a rock crevice or among exposed roots of a bank.

Polioptila caerulca amocnissima Grinnell. Western Gnatcatcher. Utah County: Tickville, Cedar Valley, June 20 (eggs). July 4 (young) (H).

The nest was of plant fiber and down, lined with plant down and hair. The outside was decorated with lichens to simulate the limb of a juniper on which it was placed.

Corthylio calendula cineraccus (Grinnell). Western Ruby-crowned Kinglet. Wasatch County: Lost Lake area, Uinta Mountains, June 22 (nest found by J. L. Mullins) (B).

Anthus spinoletta alticola Todd. Mountain Pipit. Summit County: Lily Lake, Uinta Mountain, June 26 (B). Sevier County: 7 mile Creek near Fish Lake, June 16 (B).

The nest is a globular or cup-shaped structure of hay lined with horsehair. It is placed on a slight raise in boggy, grassy meadows in alpine or upper montane forest areas.

Bombycilla ccdrorum Vieillot. Cedar Waxwing. Utah County: Lehi, July 1 (H).

The nest was placed on a limb of a black willow and was composed of rags, twine, twigs, and cedarbark.

Lanius Indovicianus nevadensis Miller. Nevada Shrike. Utah County: April 28, May 18, July 6 (H); west of Lehi, May 25, June 20 (H); south end of Utah Valley, April 25 (H); Lake Mountains, May 17. Salt Lake County: six miles NW of Salt Lake City, April 7 (B).

Nests are composed of twigs, hay, wool and hair, well cupped and at times decorated with bones or skin. They areu sually placed in an isolated greasewood or juniper.

Virco solitarius plumbcus Coues. Plumbeous Vireo. Utah County: Provo River floodplain, northwest of Provo, May 18 (collected by D. E. Johnson and C. L. Hayward).

This nest was composed of fine plant fibers together with cobwebs and covered with lichens. It was situated in a cottonwood tree about 20 feet from the ground.

Virco gilvus swainsoni Baird. Western Warbling Virco. Davis County: A set of eggs was collected by Harry Aldous from a nest situated 10 feet up in an apple tree. The exact location and date are not given (B).

Vermivora celata orestera Oberholser. Mountain Orange-crowned Warbler. Wasatch County: Strawberry Valley, June 11 (H).

This nest was placed 8 feet up in a willow near a stream. It was composed of grasses, dry leaves, bark shreds and feathers. The bird was collected for positive identification.

Vermivora virginiae (Baird). Virginia's Warbler. Utah County: Hobble Creek Canyon, May 31 (B).

The nest was partially hidden by grass and placed on the ground among the roots of scrub oak on a hillside about 100 feet from the creek and canyon bottom. It was composed of plant fibers, rootlets and hay, loosely woven.

Dendroica aestiva morcomi Coale. Western Yellow Warbler. Utah County: Provo River floodplain, west of Provo, May 30, and June 4, (B); South Fork of Provo Canyon, June 26 (B); Provo, June 4 (B); Alpine Canyon, June 15 (3) (H); Lehi, June 5, 11, 15 (3), 21, 24 (H). Wasatch County: Strawberry Valley, June 11 (H).

This species constructs a nest of plant fibers and grasses lined with plant down and horsehair, placed at moderately low levels in a bush or tree, usually near a stream.

Dendroica auduboni memorabilis Oberholser. Rocky Mountain Audubon Warbler. Utah County: American Fork Canyon, June 18, 28 (H). Wasatch County: Beaver Creek Ranger Station, May 29 (nest under construction) (Y). Salt Lake County: Bingham Canyon, June 17 (B).

This species builds a nest of fine bark strips, rootlets, plant fibers, hair and a few feathers, placed in a bush or tree. These birds breed throughout the montane forests.

Dendroica nigrescens (Townsend). Black-throated Gray Warbler. Utah County: Tickville, 12 miles west of Lehi, May 20, 1940 (H).

The nest was composed of plant fibers, juniper bark, fine dry grass and a few feathers and was completely concealed in the forks of a juniper near the top.

Oporornis tolmici (Townsend). Macgillivray's Warbler. Utah County: Vivian Park, Provo Canyon, June 25 (young just hatched), July 4, 5 (feeding young) (B), June 21 (H). (Also egg record).

Nests were of shreds of bark lined with fine grasses and hair. They are usually placed low in shrubs at the forest edge in canyons.

Geothlypis trichas occidentalis Brewster. Western Yellow-throat. Utah County: Lehi vicinity, April 16, May 20, 28, 29, 31 and June 6 (2), 13 (HB).

Usual nesting sites are marshy areas, often in wet borrow pit along a road or railway right of way. Nests are made of dry grass or rushes attached to a last year's cattail.

Icteria virens longicauda Lawrence. Long-tailed Chat. Utah County: Provo vicinity, June 3, 5, 29 (B); Lehi vicinity, June 20, 21, 28, 30 (HB).

Nests are composed of bark, rootlets, and dry leaves lined with finer grasses and placed in a bush, hedgerow or thicket along a stream, fence or base of a low hill.

Setophaga ruticilla (Linnaeus). American Redstart. Utah County: Provo River floodplain, northwest of Provo, June 10, 26 (newly hatched young) (B).

The nests of this species are firmly woven of fine bark strips, leaf stalks and plant down, lined with fine grass and horsehair. They are usually placed about 5 feet up in a cottonwood bordering the stream.

Dolichonyx orysivorus (Linnaeus). Bobolink. Utah County: Saratoga, June 19 (B). Wasatch County: Charleston, June 15 (B).

This species builds a nest of hay placed on the ground among grasses of pasture or accretion ground.

Sturnella neglecta Audubon. Western Meadowlark. Utah County: Provo Bay area, April 16, May 7 (2) (YB); Lehi vicinity, April 17, 29 (B).

The nest is of dry grasses hooded over with the same and placed on the ground of pasture or field.

Xanthocephalus xanthocephalus (Bonaparte). (13) Yellow-headed Blackbird. Utah County: Mouth of Provo River, May 27 (4) (Y); Lehi vicinity, May 1, 10, 17, 25, 27 (H).

The yellow-headed blackbird builds a well-cupped nest of dry marsh grass attached to rushes over slough or marsh.

Agelaius phoeniceus utahensis Bishop. Utah Redwing. Utah County: NW of Provo, May 17 and June 1 (B); Geneva, near Utah Lake, May 21 (2) and 25 (B); mouth of Dry Creek, May 10 (2) (B); vicinity of Lehi, May 10 (7), 15, 20, 23, 25, and June 3, 10, 12, 21, 23, 28 (H). Wasatch County: Wallsburg, May 21 and June 5 (B). Davis County: Farmington Bay Area, May 2, 8, 10 (B).

This species nests in pastures or in tules of a mash or slough. The nest is a well-shaped bowl of hay lined with cattle hair.

Icterus bullocki (Swainson). Bullock's Oriole. Utah County: south of Provo, May 31 (B); Palmyra, June 5 (B); Lehi, June 1, 13, 26 (H). Salt Lake County: South Jordan, May 27 and June 20 (B).

The nest is a pensile structure of plant shreds and string, lined with plant down and horsehair and attached to the outer limb of a tree. Nesting areas include roadsides, pastures or fields.

Euphagus cyanocephalus (Wagler). Brewer's Blackbird. Utah County: Provo Bench, May 17 and June 8 (B); Geneva, May 18 (4), 26 (B); Provo River bottoms, May 27 (3) (B); Lehi vicinity, May 20 (5), 23, 24, 27, 30 and June 6 (2), 10 (H). Salt Lake County: Hibbard, June 3 (B); Riverton, June 2 (B). Wasatch County: Wallsburg switch, May 28 (B). Davis County: Farmington Bay area, May 27 (B).

The nest is of hay and weed stems with horsehair in the cup. It may be placed in grasses of pastures or in bushes or trees.

Molothrus ater artemisiae Grinnell. Nevada Cowbird. Utah County: Utah Lake, June 30 (in nest of redwing blackbird) (B); Lehi, June 5 (in nest of blackheaded grosbeak) (H). Salt Lake County: Riverton, June 2 in nest of Brewer's blackbird) (B).

Piranga ludoviciana (Wilson). Western Tanager. Utah County: Mule Flat, Mt. Timpanogos, June 2 (2), 27 (HBY); Stewart's Flat, Mt. Timpanogos, June 23 (B); Aspen Grove, Mt. Timpanogos, June 15 (Y).

The nest is a frail structure of weed stems and rootlets placed on the horizontal limb of a tree or bush, in either deciduous or coniferous woods of the lower montane forests.

Hedymeles melanocephalus papago Oberholser. Rocky Mountain Black-headed

⁽¹³⁾ The breeding liabits of this species in Utah have been extensively described by Fautin, 1940, Great Basin Nat., 1 (2): pp. 75-91; 1941, Wilson Bulletin, 53 (2): pp. 107-22; 1941, Auk, 58: pp. 216-232.

Grosbeak. Utah County: Spanish Fork, May 27 (B); Provo vicinity, June 4 (2), 10, 22 (2) (YB); Mt. Timpanogos, June 19 and July 11 (eggs deserted and cold) (Y); Lehi, May 1, 10 (2), 16, 21, 26, 31, and June 3 (H). Salt Lake County: Hyland Bay, May 27 (B). Wasatch County: Beaver Creek Ranger Station, June 26 (B).

This species builds a flimsy nest of weed stems, rootlets, and twigs, placed in a tree or bush at moderately low levels. Eggs may often be seen through the bottom of the nest.

Passerina amoena (Say). Lazuli Bunting. Utah County: Mouth of Provo Canyon, June 3 (B); Provo, June 22, 4 (B); Vivian Park, Provo Canyon, July 2 (B); Lehi, May 25 (H). Salt Lake County: mouth of Barney's Canyon, June 4 (B).

Nests are composed of plant fibers, twigs, hay and leaves placed at low levels in bushes such as wild rose, willow, or wild current.

Hesperiphona vespertina brooksi Grinnell.⁽¹⁴⁾ Western Evening Grosbeak. Utah County: Salem, May 27, 1936. A set of 3 fresh eggs was presented to Mr. Hutchings by G. I. Bone.

The nest was situated in an oak 12 feet from the ground. It was loosely, but very well constructed and composed of fine twigs, rootlets and asparagus fern.

Carpodacus mexicanus ssp. House Finch. Utah County: Lehi, May 23 and June 1 (H). Salt Lake County: West Jordan, May 24, 28 and June 11 (B).

The house finch builds a compactly woven nest of dry grasses and bark shreds, lined with horsehair and sometimes wool, usually placed at low levels in trees.

Leucosticte atrata Ridgway. Black Rosy Finch. A single record is available of young in the nest, Burrow Mountain, Uinta Mountains, July 7, reported by G. C. Earl of Salt Lake City (B).

Spinus pinus (Wilson). Northern Pine Siskin. Utah County: Lehi, April 1, 25, and May 5, 13 (HB).

This species builds a frail nest of dry grasses and rootlets lined with hair and a few conifer needles. It is usually placed rather low on the branches of a conifer.

Spinus tristis pallidus Mearns. Pale Goldfinch. Utah Counay: Saratoga Resort, Utah Lake, July 4 (H).

The above nest was placed in a boxelder about 3 feet from the ground. It was constructed of bark strips, compactly put together and lined with horsehair. It was completely hidden from view until the leaves were parted to expose it.

Oberholseria chlorura (Audubon). Green-tailed Towhee. Utah County: Y Mountain near rim of Rock Canyon, May 25 (B); Hobble Creek Canyon, May 31 and June 5 (B); Aspen Grove, Mt. Timpanogos, June 3 (Y); Tickville, west of Lehi, May 27 (H). Wasatch County: Wallsburg Ridge, July 13 (B); Straw-

⁽¹⁴⁾ Mr. Hutchings informs me that Mr. Bone wso collected this record is well acquainted with the western evening grosbeak and there can be little doubt as to its identity. On July 24, 1937 Mr. James Bee and I saw western evening grosbeaks feeding young out of the nests at Elk Park, Uinta Mountains, Daggett County. I also collected one bird and saw a number of others in the La Sal Mountains, San Juan County, July 26, 1934. It seems likely that thees birds had bred in the area.—C. L. H.

berry Valley, May 30 (B); Bear Canyon, south of Provo Canyon, July 15 (H). Salt Lake County: Bingham Canyon, May 28 (B).

The nest is composed of twigs, bark, and leaves, lined with dry grass and horsehair. It is placed on or near the ground and is well concealed in brushy places.

Pipilo maculatus montanus Swarth. Spurred Towhee. Utah County: Cedar Valley, May 25 (B); Lehi vicinity, May 20 (2) and June 1, 10 (H); Provo River, west of Provo, June 26 (B). Davis County: Muehler Park, June 4 (B).

The nest is of leaves and strips of bark cupped in the ground and lined with hay. It is usually well hidden under a bush.

Passerculus sandwichensis nevadensis Grinnell. Nevada Savanah Sparrow. Utah County: Lehi vicinity, June 7, 30 (H). Davis County: Farmington Bay, May 23 and June 29 (B).

This sparrow builds a nest of hay in a tuft of grass in wet pasture areas.

Chondestes grammacus strigatus Swainson. Western Lark Sparrow. Utah County: Provo, June 1, 5 (B); Cedar Valley, June 26 (H); Lehi, May 26, 30, June 2, 4, 10, 26, and July 1, 9 (H).

The nest, composed of hay, plant stems and horsehair is placed on the ground among a growth of plants or under a bush.

Junco caniceps caniceps Woodhouse. Gray-headed Junco. Utah County: Salamander Lake, Mt. Timpanogos, June 25 (B); Vivian Park, Provo Canyon, July 5 (feeding young) (B); Hobble Creek Canyon, May 31 (young in nest); American Fork Canyon, June 25 and July 4 (H). Garfield County: Aquarius Plateau, June 26 (Y).

The junco constructs a frail nest of rootlets and grass in depressions in the ground. The nest is usually so situated under vegetation or bank as to receive some protection.

Spizella passerina arizonae Coues. Western Chipping Sparrow. Utah County: Hobble Creek Canyon, June 5, 18 (B); Lehi, May 10, and July 1, (2), 4 (H). Salt Lake County: Midvale, June 10 (B).

Nests are composed of grass, rootlets and plant fibers lined with horsehair. They are placed at moderate heights in bushes or trees, usually protected by an overhanging branch.

Spizella breweri breweri Cassin. Brewer's Sparrow. Utah Conuty: Jordan River near Lehi, May 30 (B); Cedar Valley, May 4 (3) and June 14 (H). Wasatch County: Charleston, July 4 (B); Strawberry Valley, May 30 (3); Wallsburg, July 1 (B); mouth of Bear Canyon off Provo Canyon, June 5 (B).

This species constructs a nest of weeds, grass stems and plant fibers, lined with cattle hair and wool, and usually placed in a sage or other low bush.

Zonotrichia leucophrys leucophrys (Forster). White-crowned Sparrow. Utah County: Alpine Canyon, June 15 (2) (H). Wasatch County: Strawberry Valley, June 6 (B). Summit County: Trial Lake, June 26 (H).

The nest of fine grasses is placed in the ground or low in vegetation.

Passerella iliaca schistacea Baird. Slate-eolored Fox Sparrow. Utah County:

Alpine Canyon, June 15 (2) (H). Wasatch County: Provo River, Wallsburg burg Switch, May 19 (B); Bear Canyon, off Provo Canyon, June 5 (B).

The outer shell of the nest is composed of bark strips and it is lined with bark shreds, grasses and horsehair. It is usually placed under a bank or at low levels in bushes.

Melospiza lincolni alticola Miller. Mountain Lincoln Sparrow. Summit County: Diamond Lake, Uinta Mountains, June 28, 1942 (collected by C. L. Hayward). The nest was on the ground in a clump of Vaccinium, near a small stream and within about 12 inches of a used beaver runway. It was composed of fine grasses and sedges. There were 5 fresh eggs in the set.

Melospiza melodia fallax (Baird). Mountain Song Sparrow. Wasatch County: Charleston, June 15, 24 (B). Utah County: Mouth of Provo River, May 3, 10 (Y).

The nest is of bark and grasses lined with horsehair or feathers, placed on or near the ground at the edge of a field or thicket.

SUMMARY

- 1. Breeding records of Utah birds based on about 17 years of field experience, mainly in Utah County, are included in the report. Many of the records represent sets of eggs collected. Where identification was in doubt, bird specimens were collected in certain instances.
- 2. A terse summary of nest construction and location is given following most of the species.
- 3. Trinomials, based on the best available information regarding the subspecific identity of breeding birds of the locality, are used. The fourth addition of the A. O. U. Check List is followed in general, with a few alterations concomitant with more recent work.
- 4. Nesting records of 150 kinds of birds are given. Data pertaining to the shore birds and hawks are especially abundant since the writers have spent most of their time working with these groups.
- 5. Among the more interesting breeding records are those of the ruffed grouse, dusky grouse, sandhill crane, flammulated screech owl, rufous hummingbird, Clark's nutcracker, Rocky Mountain creeper, lead-colored bush-tit, Bendire's thrasher, western gnatcatcher, western evening grosbeak, and turkey vulture.